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| 09/057,261 | 04/08/98 | O'HAGAN | T TELNP0157US |

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EXAMINER

SAX, R

ART UNIT

PAPER NUMBER

2748

4

DATE MAILED:

11/09/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/057,261

Applicant(s)

O'Hagan

Examiner

Robert Sax

Group Art Unit

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☒ Responsive to communication(s) filed on Apr 8, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-22 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2, 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 22 recites the limitation "graphical display contexts" in part 2, lines 2, 3 and 6, "user data input" in part 2, lines 2 and 5, "dictionary and Syntax" in part 2, lines 3 and 4 , " limited permutation" in part 2, line 5. There is insufficient antecedent basis for this limitation in the claim.

The details of the data collection network associated with the above terms lacking an antecedent basis were omitted from consideration. For purpose of a search, the claim was interpreted as a data collection network comprising 1) a host computer receiving data from plural data collection devices and 2) a mobile computing device prompting and accepting user input which may be speech and transmitting the data to a host.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

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has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1-8, 10 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Baji.

As per claim 1 parts 1 and 2, claims 2 and claim 10 of a speech recognition system with a host computer and mobile terminal with memory communicating GUI display files for display on the host computer or mobile terminal as individual or attached dictionary or syntax files wherein the mobile terminal includes a microphone for receiving speech input, Baji teaches GUI display files, for a host computer and a detachable small portable terminal device to be carried by a user, both supported by the conventional Macintosh SE operating system with an advanced man machine interface capable of receiving, storing retrieving, appending and displaying text or graphical files such as dictionary and syntax files both in the host and the portable terminal device with the portable terminal further customized as a a portable speech or graphical recognition and synthetic speech interface unit with a peripheral CPU and memory for accepting the users speech or handwriting for conversion to text for local display or communication to the host, wherein the portable terminal is detached from the host computer with communication with the host CPU for processing files accessible to either CPU and file transfers to support dictionary updates and neural net updates of the portable speech interface required for converting phoneme trains to significant text as phoneme train to word by the dictionary file and to a higher order word train by syntax parsing of sentences, phrases and commands, wherein the portable terminal accepts speech input into a microphone and locally performs speech recognition for conversion to significant text and speech synthesis for producing for audible speech output supported by the

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communication connection between the detached portable speech interface and host computer including downloading of files from the host computer for updating signal processing parameters used for phoneme recognition (Figure 8; Figure 19; Figure 23; column 1, lines 20-52; column 20, lines 13-25; column 6, lines 1-16; column 6, line 49 - column 7, line 18; column 7, lines 30-36; column 7, lines 43-68).

As per claim 1 part 3 of associating at least one GUI display file sent from the host to the mobile unit with at least one of a dictionary and a syntax file including a dictionary and/or syntax file stored in host memory and claims 3-7 wherein attached to at least one GUI display is at least one dictionary file and syntax file, wherein a dictionary file and/or syntax file is stored in the host computer and/or mobile terminal and claim 22 of a host computer and mobile computer collecting data by speech input for transmission to the host, Baji teaches using the capability of a system such as the Macintosh SE computer operating system or Internet for the host CPU and mobile terminal peripheral CPU to perform file transfers such as copy, move or append to a specified file or communication of downloading files which membership functions, neural net weight functions and dictionary data for updating speech recognition memory with information of high importance in determining the property of speech recognition wherein speech sounds identified as phonemes are parsed and patterns identified in the dictionary as words wherein for syntactical identification of a pattern of words as proper text a file of possible recognized word patterns is transmitted to the host in order to associate trains of recognized phonemes with a train of words and access the host for syntactical recognition of higher rank resulting in conversion of speech to text with

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proper semantic content wherein syntactically recognized speech input is worn hands free by the user of a mobile computer and used for data collection by note taking wherein the notes are downloaded to files in the host computer (column 1, lines 20-52, column 7, lines 52-68; column 6, lines 19-30; column 8, lines 15-43; column 20, line 13 -column 21, line 16).

As per claim 8 according to claim 1 of the mobile terminal mapping sequences of phonemes to operating instructions, Baji teaches application of a detachable personal terminal device performs phoneme recognition which converts speech input to significant text by using dictionary and syntax files to recognize phoneme trains as words which can be parsed with acceptable syntax as described in the preceding paragraph, and wherein said recognized speech is input into the personal terminal recognized as operator instructions (column 14, lines 43-66; column 17, lines 46-61; column 18, lines 15-52; column 19, lines 16-24; column 20, lines 13-27).

As per claim 12 parts 1-3, claims 13 of a remote mobile terminal including a processor and memory capable of displaying at least one GUI display file, of claim 18 steps 1-3 of a method for speech recognition associated with a GUI and claim 20 of a remote client computer receiving a GUI file from a remote host for the purpose of using the GUI display file to input reference data for commands that may be input by speech using dictionary and syntax files for translating speech input into commands, Baji teaches a host computer and a personalized peripheral terminal with a peripheral CPU, memory and display adapted to an image interface for entering handwritten text or commands and further adapted to a speech recognition and instruction recognition interface for inputting spoken dictation or commands with conventional man machine interface as described in

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the Macintosh SE manual capable of displaying GUI display files on either the host computer or personal terminal enhanced with neural nets adaptively supporting an advanced image, speech and instruction recognition system which use dictionary and syntax files for GUI display files for the instruction recognition portion and speech transmitting portion made smaller and more portable by detaching the portable speech interface from the host and further teaches detaching both the speech and image interfaces for enhanced mobility in receiving speech or displaying a GUI from the host (column 1, lines 20-52; column 20, lines 13-44; and column 21, lines 11-21).

As per claim 12 parts 3 and 4 of a mobile terminal employing at least one dictionary file and syntax file for recognizing speech as phoneme sequences mapped into valid operating instructions with the scope of speech recognition reduced to minimize data processing requirements, claim 14 of dictionary file and syntax file attached to the GUI display file and claims 15-17 of storing the dictionary and/or syntax file on the mobile terminal, remote unit or remote host, Baji teaches speech recognition by dictionary and syntax files which convert trains of phonemes into words of a dictionary and words by syntax parsing into significant text used for reliable instruction processing with the scope focussed on interactive judging recognition of instructions so as to minimize the data processing required for reliable parsing of computer instructions from speech input of the user whereby a neural net performs error detection and correction for recognizing and correcting speech recognition errors to produce the interaction required for a valid computer instruction (column 6, lines 49-53; column 7, lines 11-16, lines 30-36; column 14, line 59 -column 15, line 35; column 16, lines 16-68).

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9, 11, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baji in view of Barclay.

As per claims 9 and 11 of at least one GUI display file of file size designated by the host computer communicated by packet by a platform independent architecture based on Java, claim 19 of a host computer for general operations in sending a GUI file to a remote client for prompting input from a web page, and claim 21 step 1 of a transmitted GUI file to a second device comprising an HTML file, step 2 of a dictionary and syntax file for speech recognition and step 3 of dictionary and syntax files for recognition specific to a web page.

Baji teaches communication unit 22 for communicating between a host computer and mobile terminal via a communication line (column 6 lines 1-3) and teaches dictionary and syntax files communicated from a computer to a second remote device which performs speech recognition on speech input but into the second device, or from disk storage or communicated from the remote host computer (column 5, lines 32-48) but Baji does not teach JAVA applets for packet communication to HTTP server applications on the internet.

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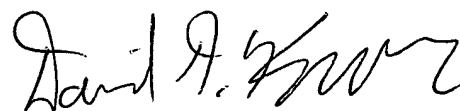
Barclay teaches real time speech recognition on the Internet by packet communication of speech from the dispatcher of the client processor; with a browser for processing a Web page in HTML comprising graphics, text, and embedded applets programmed by JAVA to access display files from servers of hyper-text or results from executable files; to a remote HTTP server whereby a message packet of quantized features of the clients utterance is forwarded to the dispatcher of the server and acknowledged by a SET RECEIVED SIGNAL returned to the client dispatcher to initiate communication from the client to the server at a rate commensurate with real time latency with packet sizes limited to memory space of the host server (column 6, line 26 - column 7 line 59; column 8, lines 36-64).

It would have been obvious to an artisan at the time of the invention to expand Baji's general concept of a personalized mobile speech recognizer which converts spoken input into digital data for delivery or communication to a host computer either by portable media or by real-time digital data communication. Although Baji did not teach packet communication for data communication as taught by Barclay, it would have been available and implementable at very low cost by using digital cellular communication to communicate speech from remote locations to the host computer and given such realtime communication capability taught by Barclay to further use platform independent JAVA code for communicating digital data input from a mobile speech recognition terminal to HTTP servers on the internet thereby accessing data on the internet by spoken input from remote mobile terminals.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sax whose telephone number is (703) 306-3017.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (703) 308-4825.

A handwritten signature in black ink, appearing to read "David D. Knepper". The signature is stylized with a large initial "D" and a cursive "Knepper".

DAVID D. KNEPPER
PRIMARY EXAMINER

RLS

November 2, 1999